

10/771,723

[002] This application claims priority from German Application Serial
No. 103 05 241.0 filed February 8, 2003.

[003] FIELD OF THE INVENTION

[004] The invention concerns a six-gear or seven-gear dual-clutch transmission
according to the preamble of claim 1.

[005] BACKGROUND OF THE INVENTION

[009] ~~—— The solution of this problem results from the features of the main claims~~
~~while advantageous developments and improvements of the invention can be~~
~~understood from the sub-claims.~~

[010] SUMMARY OF THE INVENTION

[035] BRIEF DESCRIPTION OF THE DRAWINGS

[036] The invention will now be described, by way of example, with reference
to the accompanying drawings in which:

[039] DETAILED DESCRIPTION OF THE INVENTION

[041] The output sides of the clutches K1, K2 are connected with two input
shafts (3, 4) disposed coaxially to each other. The first input shaft 3 is designed
as a hollow shaft and the second input shaft 4 as a solid shaft, the latter being
rotatably supported in the hollow shaft.

10/771,723

[047] For more clarity in this representation, it is now shown that the reverse idler wheel 10 is in tooth contact with a reverse fixed wheel which is fastened upon a separate reverse gear shaft. One other reverse fixed wheel upon said reverse gear shaft RG meshes with the contact toothing 20 on the differential transmission 21.

[055] If very strong thermal loads of the first clutch K1 are to be feared in a starting operation in the first gear or of the second clutch K2 in a starting operation in reverse gear RG (trailer operation on the slope), it is possible to use, in the transmission shown in Fig. 2, another coupling device 38 with which both input shafts 3, 4 can be rigidly connected. In this manner, both clutches K1, K2 have doubled torque-transfer capacity available for a starting operation.

Page 11**Reference numerals**

1 dual-clutch transmission	23 shifting set <u>coupling device</u>	20
2 drive shaft	24 shifting set <u>coupling device</u>	20
3 first input shaft	25 shifting set <u>coupling device</u>	20
4 second input shaft	30 dual-clutch <u>transmission</u>	20
5 first countershaft	31 shifting set <u>coupling device</u>	20
6 second countershaft	32 shifting set <u>coupling device</u>	20
7 idler wheel	33 fixed wheel	20
8 idler wheel	34 idler wheel	
9 idler wheel	35 idler wheel	
10 reverse gear idler wheel	36 idler wheel	
11 fixed wheel	37 fixed wheel	
12 fixed wheel	38 shifting <u>coupling device</u>	20
13 fixed wheel	G1 first gear	
14 fixed wheel	G2 second gear	
15 idler wheel	G3 third gear	
16 idler wheel	G4 fourth gear	
17 idler wheel	G5 fifth gear	
18 output gear wheel	G6 sixth gear	
19 output gear wheel	G7 seventh gear	
20 toothing on differential transmission	RG reverse gear	
21 differential transmission	K1 clutch	
22 shifting set <u>coupling device</u>	K2 clutch	20